



# HORIZONS PROJECT

FINAL NATIONAL DEMOGRAPHIC REPORT  
ON  
AFRICAN AMERICAN ELDERLY

SUBMITTED TO:

THE CENTER FOR BENEFICIARY SERVICES  
HEALTH CARE FINANCING ADMINISTRATION  
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

SUBMITTED BY:

THE HELIX GROUP, INC.  
CONTRACT #500-99-0035  
TASK ORDER #001

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# **THE HELIX GROUP, INC.**

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June 2, 2000

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Dear Ms. Williams:

Please find enclosed the *Final National Demographic Report* for Task Order No. 0001, a deliverable for The Horizons Project, African American Population, Contract Number # 500-99-0035. Please note that this final report includes two new sections (D and E, under Quantitative Data Analysis) that provide basic socio-demographic information from the National Health Interview Survey (NHIS) about: 1) African American Medicare beneficiaries, and 2) the foreign-born African American elderly. In addition, we revised the Executive Summary, moved Table 1 in the Multivariate Analysis section to the end of the report as an Appendix, and added new citations to the Bibliography.

As discussed, in our next deliverable, the Draft Targeted Demographic Report, we will include a section that describes each of the data sources that we will have utilized to prepare the national and targeted demographic reports. These sources will also address each of the Horizons Minimum Data Set variables put forth by the Data Advisory Panel and discussed during the May 3, 2000, meeting.

As you know, we are currently analyzing the 1998 Medicare Current Beneficiary Survey (MBCS) data and will present the findings in the Targeted Demographic Report. Since MCBS permits data analysis by state, we will also prepare maps that present the findings graphically. Finally, we are reviewing the literature to identify possible differences in health insurance information needs/health information-seeking behaviors among Caribbean-born African Americans 65 and older.

Please call me at 301-839-7311, extension 11, if you have any questions. Thank you.

Sincerely,

Victor Sierra, Sc.M.  
Project Director

cc: Dianne Roberts, Contracting Specialist, HCFA (transmittal letter only)  
Sabrae Derby, Vice President, The Helix Group, Inc.

Enclosure\



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## **I. Executive Summary**

In support of the Horizons Project, The Helix Group, Inc. (THG) is conducting formative research to determine the most effective means of communicating Medicare+Choice benefits, rights, and protections to elderly African American Medicare beneficiaries. Using empirical research methods, THG will assist the program managers of the HCFA Center for Beneficiary Services (CBS) to: (1) identify the health care choices of African American Medicare beneficiaries; (2) determine why they are being made; and, (3) suggest effective ways that choices can be enhanced. Formative research will also help the program managers to explore the perceived and actual barriers and benefits of making informed health care decisions.

THG's use of formative research is multi-purpose and includes problem identification (i.e., situation analysis), audience segmentation, and targeted communication strategy development. Both quantitative and qualitative research methods have been used. This deliverable, the Nationwide Demographic Report, will focus on a descriptive analysis of the 1996 National Health Interview Survey (NHIS) and is supplemented with current U.S. Census estimates. THG also prepared a preliminary review of the literature on qualitative research with African American elderly populations. This review provides a synthesis of research findings about the African American elderly's health promoting behaviors, preventive health behaviors, health care seeking behaviors, levels of health literacy, and the role of religion in their lives.

In 1900 approximately 4% of the people in the United States were 65 years or older, that is less than 1 in 25 persons. By 1990, almost 13% of the people, 31.2 million were 65 years or older. Of that number, 28.4 million were white and 2.5 million were African Americans. However, beginning in the early part of the 21<sup>st</sup> century the proportion of older African Americans is expected to increase at a greater rate than the proportion of whites because the present cohort of African American "baby boomers" unlike their parents and grandparents are projected to live longer (Profiles of America's Oldest Old, U.S. Department of Commerce 1992). The increase in the size and diversity of the African American elderly population has important implications for health care and health care delivery systems. This growth will not only place greater demands on the public and private health care sectors but also the response to those demands must increasingly be targeted to the population's diversity.

Using the 1996 NHIS, THG created a dataset of all persons born in 1931 or earlier who responded that they were either Black or African American; there were 2,686,638 persons of whom 39% were male and 61% were female. The mean age of African Americans was 73.2 (s.d. 6.67); the mean age for females was slightly higher than that of males—73.6 and 72.7 respectively.

THG found that the majority of elderly African Americans live in the south (59%), in metropolitan areas (59%), are not married (67%), and have 10.1 (s.d. 3.68) years of education. Many live alone (40%), report that their health is either fair or poor (40%), and that they have some limitations in their daily activities (40%). Ninety percent (90%) responded that they were Medicare beneficiaries and 8% reported that they were Medicaid beneficiaries. Seven percent of respondents indicated that they were both Medicare and Medicaid beneficiaries. Last





approximately 6% of the respondents in the NHIS indicated that they were not born in the United States. However, 85% of the “foreign-born” elderly had lived in the United States for 15 or more years.

The demographic profile of the African American elderly will be employed to provide a descriptive statistical overview and to generate a communications strategy for disseminating information to this population.



## II. Quantitative Data Analysis

### A. *Introduction*

Prior to receiving the Medicare enrollment and denominator files from HCFA, The Helix Group (THG) obtained data (National Health Interview Survey, 1996) from the National Center for Health Statistics (NCHS) to develop an initial demographic profile of African Americans, 65 years and older, in the United States. These data are used in lieu of the HCFA databases but are not likely to differ significantly from the HCFA dataset with regard to the demographic characteristics of the African American elderly.

The NCHS has conducted the National Health Interview (NHIS) annually since 1957. NHIS is a personal household interview survey using a nationwide sample of the civilian, non-institutionalized population in the United States. It consists of five different record files:

- **Household Record:** The Household file contains one household record for each interviewed household.
- **Person Record:** The Person file contains one-person record for each person for whom information was obtained in an interviewed household.
- **Condition Record:** The Condition file contains one condition record for each reported condition.
- **Doctor Visit Record:** The Doctor Visit file contains one record for each reported two-week doctor visit (includes telephone calls).
- **Hospital Record:** The Hospital file contains one record for each reported hospitalization.

In addition to the five record files above, THG looked at two additional record files; they were:

1. **Access Record:** The 1996 National Health Interview Survey (NHIS) Access data file contains a variety of data items addressing access to health care services.
2. **Health Insurance Record:** The 1996 National Health Interview Survey (NHIS) Health Insurance data file contains a variety of data items addressing health insurance.

The response rate for the survey has been between 93 and 96 percent over the years. However, the response rate for the 1996 Access supplement was 90.0 percent and the response rate for the 1996 Health Insurance was 89.8 percent.

### B. *Data and Methodology*

The socio-demographic variables of primary interest, gender, age, marital status, educational level, living arrangements, poverty level, metropolitan statistical area (MSA), and region were selected from the Person Record file. Additional variables identified from the Health Insurance and Access Record files were merged with the Person Data File. A supplemental appendix is available that lists these variables and values.



Responses for unknown, not ascertained, don't know, or refused were coded as system missing. The values divorced and separated of marital status were collapsed into one, as were the values, living with spouse, living with relatives, and living with non-relatives, of the variable, living arrangements.

Simple frequency analysis of the variables and cross tabulations of age group times marital status, age group times educational level, age group times living arrangements, age group times poverty status, and age group times region were completed. Chi-square statistics were undertaken and significant differences are noted. Lastly, correlation matrices (listwise and pairwise) were constructed to determine the relationship among the variables and to assess multicollinearity.

THG included all persons in these NHIS analyses who were 65 years or older effective December 31, 1996 and responded that they were Black or African American. It was necessary to utilize weighting for the analysis of the data because if the sample is not weighted, standard statistical analysis methods for estimation and hypothesis testing may yield biased and misleading results. The weights reflect the sample selection probabilities and are typically adjusted to account for non-response. For the NHIS survey, the weights are termed "National Inflation Weights" and are computed as the product of (at least) four weighting factors: (NCHS, 1989)

- Inverse of the probability of selection
- Household nonresponse adjustment
- First-stage ratio adjustment
- Second-stage ratio adjustment (post-stratification)

The latter two adjustments are more technical in nature, reflecting an adjustment for undercoverage and post-stratification so that the race-sex-age classes reflect the US Bureau of the Census sub-population estimates. In effect, then, under these circumstances with some caveats noted in the NCHS reference, the sum of the weights in each sex/age class for our sample is an estimate of the total number of those subjects in the US. In particular, the sum of all the weights in our sample (2,686,638) is reflective of the entire non-institutionalized population of African Americans in the U.S. who are 65 or older. Changes in the sample design of the NHIS after 1994 were made and will be discussed in a subsequent presentation of this draft report.

NHIS data are obtained through a complex sample design involving stratification, clustering, and multistage sampling. For this reason, it was necessary to use weights. The weights range from 1065 to 8744, and average 3149.6 with a median of 2971. For the purpose of determining the statistical significance of the associated statistical tests in this report, THG scaled the weights. Weights are typically scaled for two reasons:





1. Most statistical software programs, which allow weighting, interpret the sum of the weights (2,686,638) to be the sample size, 853 in this case. The result of this approach to weighting is that p-values are too small and therefore incorrect.
2. Scaling does not affect the unbiasedness or consistency of most statistics of interest.

To scale, each weight is multiplied by the sample size and divided by the sum of the weights. This is equivalent to dividing each weight by the average weight, e.g.

$$\begin{aligned}ws &= n \times w / \text{sum}w = w / \text{avg}w \\&= 853 \times 1065 / 2,686,638 = 1085 / 3149.63 \\&= 0.3445\end{aligned}$$

The average scaled weight is one—about one-half the weights are below one and the other half are above one. When scaled weights are used, the sum of the scaled weights will equal the sample size; therefore, statistical programs used in this report will provide approximate tests for statistical significance.

To obtain more precise estimates using appropriate statistical tests, computer programs appropriate for the analysis of complex sample surveys must be used—i.e. Survey Design Analysis (SUDAAN) program. SPSS or SAS (with weighting) obtains the same estimates as SUDAAN (with weighting) for typical statistical applications. However, only a program such as SUDAAN utilizes the stratification and clustering information in the complex survey design to compute appropriate standard errors and confidence intervals. In our experience, we have found that SPSS or SAS with scaled weights provides adequate approximate tests that are useful in practice, but often conservative since they do not take into account the clustering in the survey design. Future analysis using HCFA data will include SUDAAN.

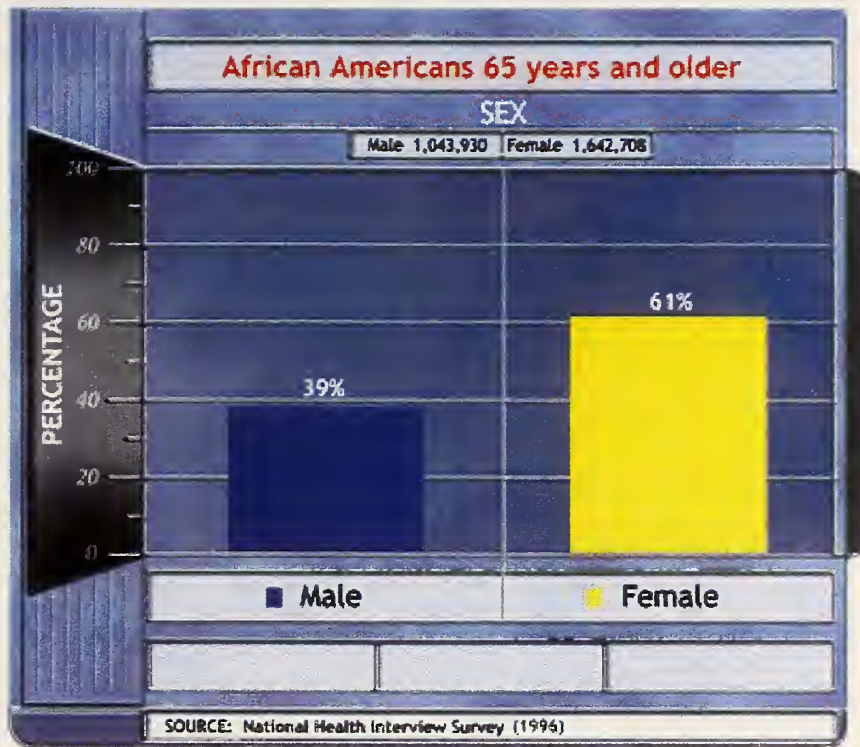
### C. *Descriptive Analyses*

#### 1. Gender

Of the African Americans aged 65 years and older who responded to the 1996 NHIS, 39% were males and 61% were females (See Chart 1). These data are similar to other national population estimates of the African American elderly. For example, the 1996 U.S. Census Bureau Estimates and Projections indicated that there were 2.8 million African Americans over the age of 65. There were approximately 1.1 million (39%) African American males over the age of 65 and 1.7 million (61%) African American females. In contrast, 28.4 million, 14% whites were over the age of 65. Of this number, 12.4 million (44%) were white males over the age of 65 and 17.8 million were white females over the age of 65.



Chart 1



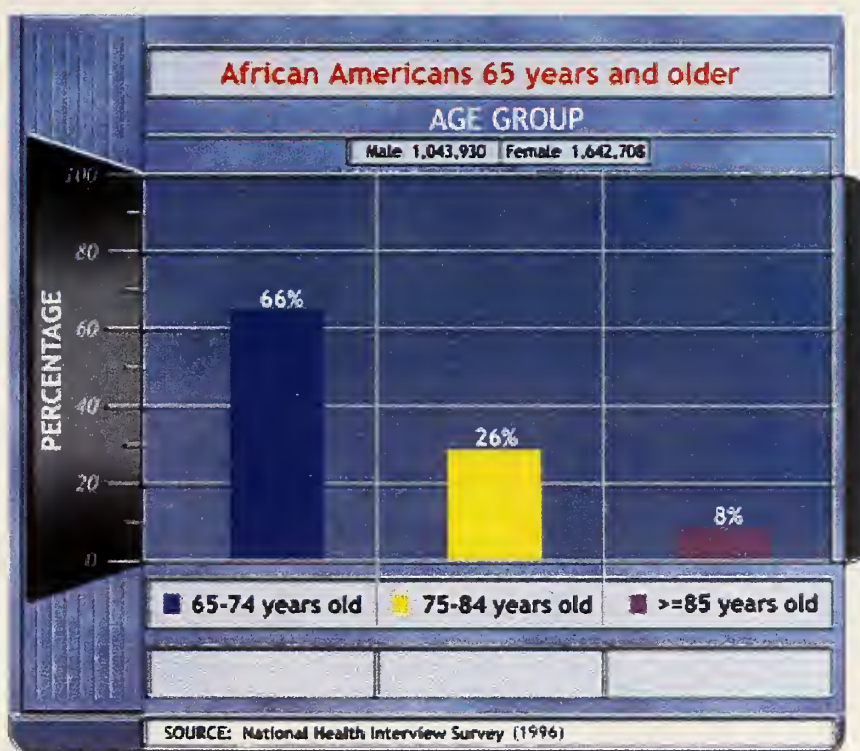
In reviewing gerontological research on the U.S. population, Riley and Riley (1986) suggested that there were three chronological divisions among the elderly. They are the young-old, 65-74 years old, the old-old 75-84 years old and the oldest-old 85 years and older. Gerontologists generally regard these categories as the young-old, medium-old and old-old. THG will use these definitions throughout this profile.

Sixty-six percent of African Americans in this survey are 65-74 years old, 26% are 75-84 years old and 8% are 85 years or older (See Chart 2). Not surprising there is a greater proportion of individuals who are young-old in each gender. Sixty-nine percent (69%) of males are young-old whereas 65% of females are young-old. In contrast, 9% of African American females are 85 years or older while only 6% of the males are 85 years or older.





Chart 2



It is important for developing policy and targeted communication strategies to consider the distribution of selected age groups now and in the future. As noted previously, the young-old, ages 65-74, currently represent 66% of the African American elderly population; those over 85 are slightly less than 10 percent of this population. In contrast, the corresponding proportions in 2050 are projected to be 53% young-old and 22% old-old.

## 2. Living Arrangements

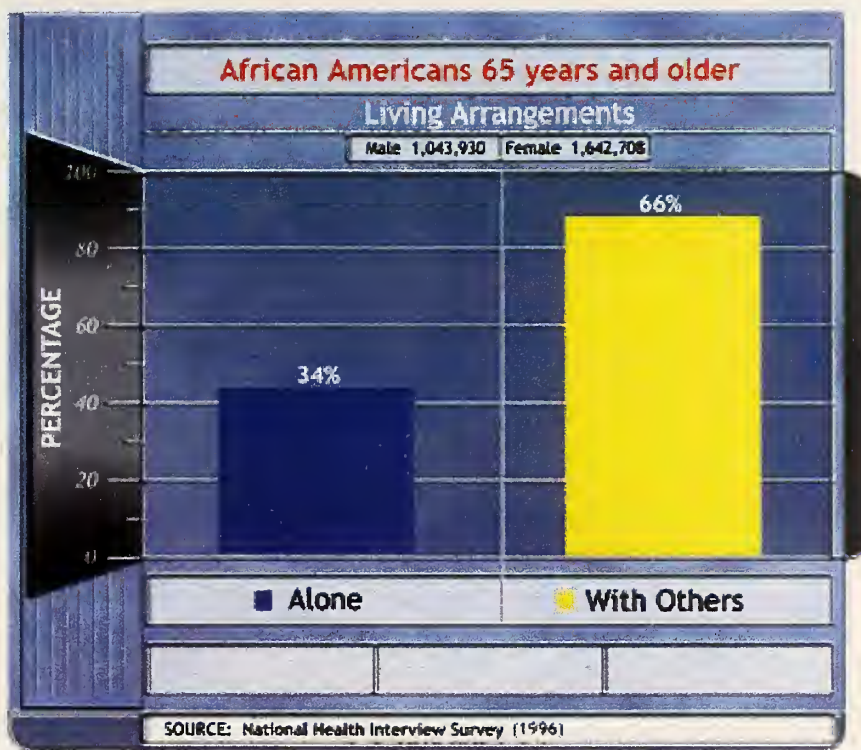
Living arrangements are fundamental to the study of the elderly because the absence or presence of others may play an important role in the health status of a senior. The presence of others living in the household may affect a senior's response to illness or disability, and may enhance the quality of life. Interestingly, the data indicate that older non-married persons who live alone are more likely to state they are in better health than older non-married persons who do not live alone (National Center for Health Statistics, 1999). It will be important to combine quantitative and qualitative research to understand this apparent contradiction between observed and expected health status of African American elderly who live alone.

The NHIS analysis revealed that 34% of the African American elderly live alone (See Chart 3). Furthermore, major differences occur in the living arrangements of older African American males and females. African American women are much more likely to live alone than their male counterparts because they live longer and have significantly fewer options for remarriage. Forty percent of African American females as compared to 23% of African American males live alone. In every age group, more African American females live alone than African American males.



Women between the ages of 75 and 84 years are twice as likely to live alone as males of the same age.

Chart 3



### 3. Marital Status

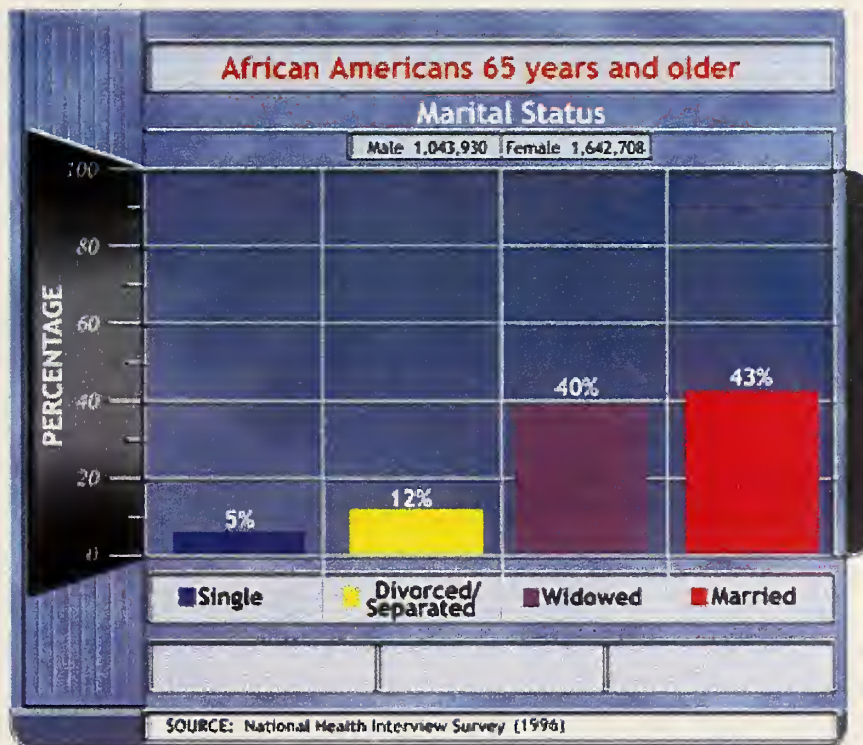
The NHIS analysis indicated that older African Americans were almost as likely to be widowed as married, 40% and 43% respectively (See Chart 4). However there are striking gender differences. The majority of older African American men are married, 68%, 61%, 54% respectively of the young-old, medium-old and old-old but the majority of African American elderly women are widowed, 44%, 69%, 82% respectively of the young-old, medium-old and old-old.

Marriage provides the most central support function in many older people's lives—this is especially true for men. Of all persons, spouses are most likely to serve as a confidant and to provide support in times of difficulty. In addition, spouses are the primary and preferred caregivers in later life. Given the present increases in life expectancy, there is an increasing probability that more spouses will become caregivers at some time in the marriage.





Chart 4



In 1996, the NHIS data indicated that 4% of African American men over the age of 65 never married and 63% had been married at some point in their lives. Among white males in the same age group, 4% never married and 76% had been married. (U.S. Census Bureau, 1996)

#### 4. Poverty Status

Poverty thresholds are the original version of the federal poverty measure. They are primarily used for preparing estimates of the number of Americans in poverty each year and to determine financial eligibility for certain federal programs. (Federal Register, Vol.64, No. 52, March 18, 1999).

In 1996, the federal poverty threshold level was \$8,163 for an individual under the age of 65 and \$7,525 for an individual over the age of 65. However, the federal poverty level was \$7,740. Similar to the NHIS results, the United States Census (1997) reported that among African Americans 65 years and older, 661,000 (25.3%) in 1996 were below the poverty level. In contrast there were 2.6 million (9.4%) whites 65 years and older below the poverty level. African Americans were 2.7 times more likely to live in poverty than whites.

Demographic information on the poverty status of older African Americans is important because family (and/or individual) income plays a crucial role in the use of health services. Even with Medicare (and Medicaid), the individual must pay some health expenses; thus the inability to pay

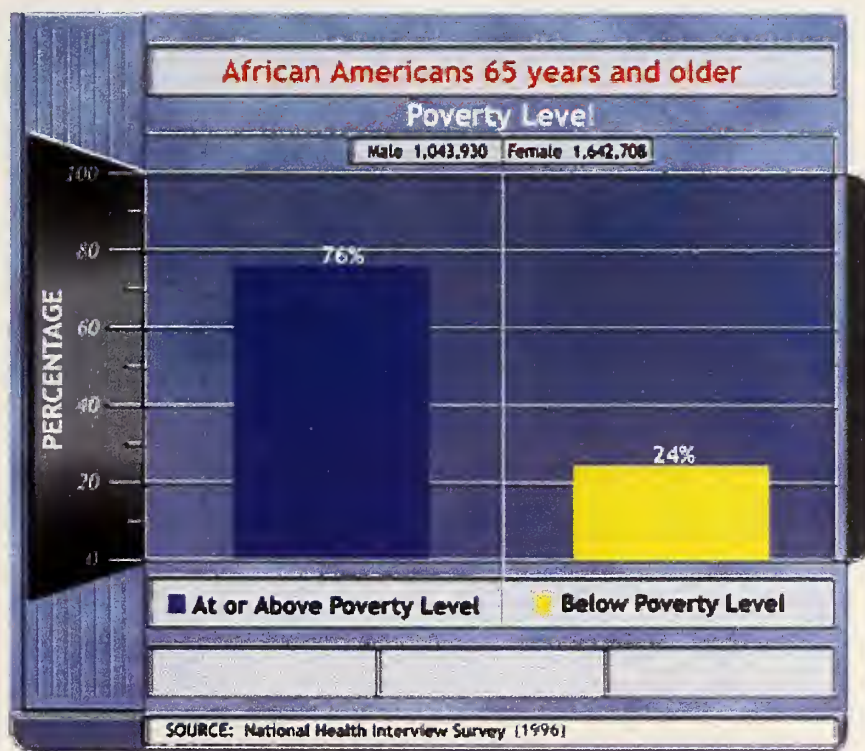




for health care has the potential of inhibiting older African Americans from seeking health services. In particular, preventive health care services may be utilized less than routine care. Likewise, there is a stigma attached to poverty and many older people will not seek care if they cannot pay for it. It is important to note that income is such a sensitive topic that more than 25% of African Americans responding to the NHIS refused to answer questions about income. Thus, these data do not reflect the most accurate picture of poverty among African American elderly.

According to the 1996 NHIS, 24% of African Americans responding live below the poverty level (See Chart 5). With the exception of the old-old, males of all age groups are less likely than their female counterparts to live below the poverty level. The older a male is, the more likely he is to live below the poverty level. However, the same fact is not true for African American females.

*Chart 5*



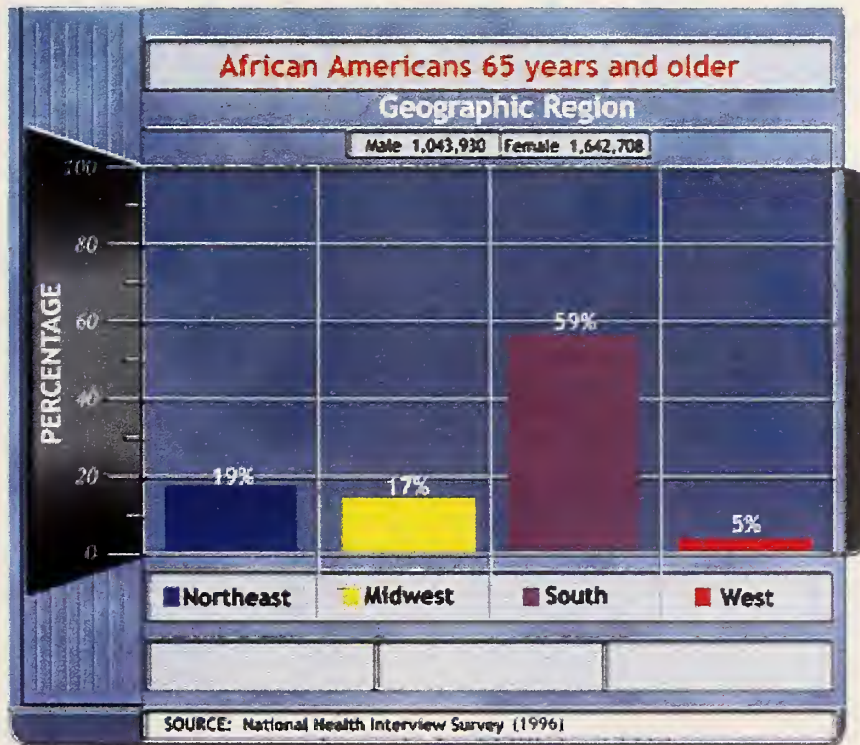
In 1996, about 43 percent of the potentially eligible Medicare beneficiaries were not enrolled in either the Qualified Medicare Beneficiary (QMB) program, the Specified Low-Income Medicare Beneficiary, the Qualifying Individuals 1, (QI1), or the Qualifying Individuals 2 (QI2) program. Enrollment in these programs is low because many elderly may believe that the programs are only for the poor and are unwilling to accept what may be considered welfare. This suggests that more targeted outreach with a culturally competent content and appropriate literacy level, less complex enrollment process could help increase enrollment in these programs.



## 5. Geography

The 1996 NHIS shows that a majority (59%) of African Americans over the age of 65 reside in central cities, 23% lived in the suburbs, and 19% lived in rural areas. The majority of African Americans (59%) lived in the south, 19% in the northeast, 17% in the midwest and 5% in the west (See Chart 6). Young-old and old-old females are more likely to live in cities than young-old and old-old males. Conversely, old-old males are more than twice as likely to live in rural areas than old-old females.

Chart 6



The Census reported that in 1991, 12 of the 13 states (exception, Michigan) with an elderly African American population of 10 percent or more were located in the south. African American elderly comprised between 20 and 30 percent of all elderly in Georgia, Alabama, South Carolina, Louisiana, Mississippi, Arkansas, Delaware, Tennessee, Maryland, Virginia, North Carolina, and the District of Columbia. Two of every three elderly in the District of Columbia are African American.

Similarly, Giger (1997) found that 55 percent of African American elderly reside in the south and further, those who lived in rural areas were less likely to have private insurance, more likely to live below the poverty level and be on Medicaid. Analysis of the geographic distribution of African Americans can yield important variations that must be considered in planning cost effective initiatives.



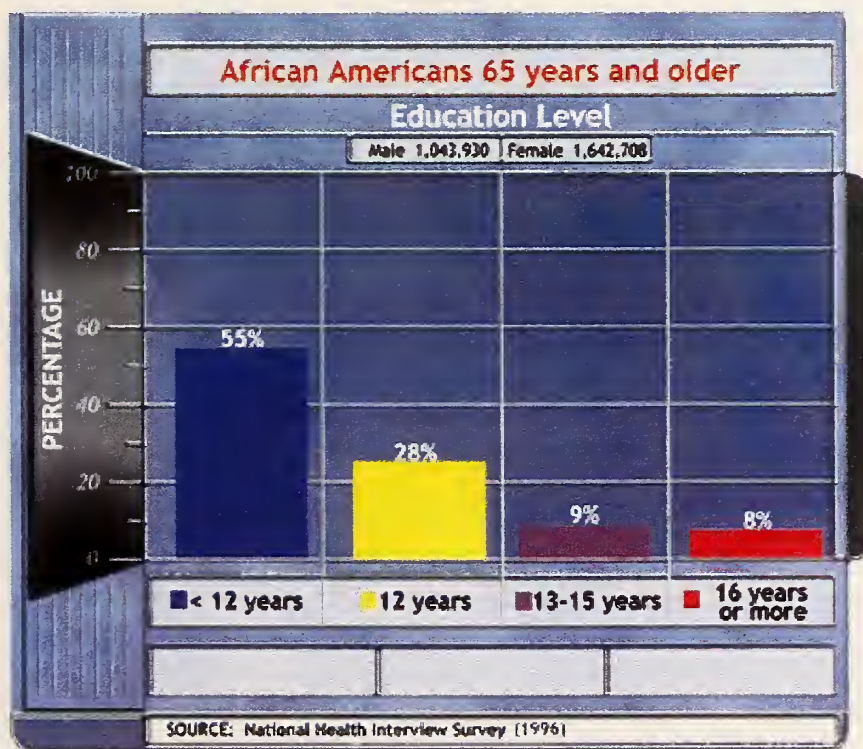


## 6. Education Level

The majority (55%) of the African Americans aged 65 and older in the NHIS completed less than 12 years of education, 28% completed high school, 9% attended colleges, and 8% completed college or attended graduate school (See Chart 7). However there were noteworthy gender and age group differences. The mean number of years of education is greater for females than males, 10.5 (std. =3.6) and 9.7 (std=3.74) years respectively.

Fifteen percent of both African American males and females, 85 years or older, completed 12 years of education. However, no African American male 75 years and older indicated that he had completed college. In contrast, 17% of African American women 75 years and older stated that they had completed college.

*Chart 7*



There is a positive relationship between education and the use of health services. Specifically, education interacts with socio-economic status, availability of insurance and knowledge of the health care system to influence perception and consequent utilization. Research indicates that there is a correlation between life expectancy and education levels among older African Americans. Guralnik et.al, (1998) found that in North Carolina, African American women with an education level of less than 12 years had a remaining life expectancy of 15.9 more years at the age of 65 but African American women with an education level of more than 12 years had a remaining life expectancy of 19.5 more years at the age of 65. Similarly, although less pronounced, the study also revealed that African American men with education levels of less than 12 years had a remaining life expectancy of 9.6 more years at age 65 but African American



men with education levels of more than 12 years had a remaining life expectancy of 12.5 more years at the age of 65. Parallel results were found at ages 75 and 85.

## 7. Multivariate Analysis of a Selected Variable

Multiple logistic regression analysis was conducted using the 1996 NHIS to assess the simultaneous effects of independent variables on the living arrangements of African American elderly respondents. The dependent variable, living arrangements, consists of living with others (referent category) and living alone. The model included the sociodemographic predictors age, gender, education, marital status, metropolitan residence, poverty status, self-reported health status, and geographic region.

As presented in the Appendix, the adjusted findings revealed that marital status, metropolitan statistical area, poverty level, and health status were significant predictors of living arrangements. Individuals who perceived their health to be poor are more than 5 times as likely to live with others compared to those who rated their health as excellent or very good. Persons below the poverty level are more than twice as likely to live with others as those above this threshold. The results also showed that central city residents are less likely to live with others than those residing in rural areas.

This statistical model uses macro-level demographic analysis to understand social heterogeneity among African American elderly and to implement optimal outreach programs. This type of analysis can help direct communication strategies and program development by: 1) suggesting specific target populations (e.g., impoverished elderly persons living alone) to focus on among the African American elderly; 2) appropriately channeling informational needs to large segments of the population; 3) increasing cost efficiency; and 4) improving the potential for successful outreach programs and interventions. For example, one important implication of this model is that the underutilization of QMB, SLMB, QI1, and QI2 programs may be reduced considerably by using data-based strategies to target both eligible elderly persons as well the persons with whom they are living. The model demonstrates that those African Americans who may be eligible for QMB, etc, are more likely to living with someone than living alone. It is likely that these persons are relatives and maybe contributing to the senior's health care expenses. Thus targeting these significant others will likely prove to be a valuable communications strategy to reach this population and address the issue of underutilization of QMB, SLMB, QI1 and QI2. Analysis of HFCA databases will permit more detailed assessment of the practical significance of various sociodemographic and other predictors relevant to the Horizons project.





#### *D. Medicare Beneficiaries in the NHIS*

There were 2,518,640 African Americans, 65 years and older, in the National Health Interview Survey who responded to the question, 'Were you covered by Medicare last month'; of this number, 90% replied 'Yes'. A crosstabulation by gender and age group showed that of those responding 'Yes', 38% were male and 62% were female. Sixty-four percent, 27%, and 9% of those responding 'Yes' were young-old (65 –74 years old), medium old (75 – 84 years old), and old-old (85 years or older) respectively.

Fifty-nine percent (59%) of the Medicare beneficiaries in the NHIS lived in the south<sup>1</sup>, 19% in the northeast<sup>2</sup>, 17% in the midwest<sup>3</sup>, and 5% in the west<sup>4</sup>. Most Medicare beneficiaries (57%) lived in cities; almost equal numbers lived in the suburbs and rural areas, 23% and 20% respectively. Approximately 8% (180,106) of those responding indicated that they were both Medicare and Medicaid beneficiaries. The majority (67%) of these dually enrolled lived in the south, very few resided in the west (6%) and almost equal numbers in the northeast and midwest, 13% and 15% respectively. Within each region individuals who are young-old were less likely to respond that they were dually enrolled than the medium-old or the old-old. Fewer Medicare beneficiaries (43%) are married than are not married. Of the 67% who are not married, 5% never married, 12% were divorced or separated and 41% are widowed.

Fifty-six (56%) of Medicare beneficiaries in NHIS completed less than 12 years of school, 28%, were high school graduates, 8%, attended college, and 8% had either graduated from college or attended graduate school. Last, Twenty-four percent (24%) of the Medicare beneficiaries in the NHIS responded that their incomes were below the poverty level.

#### *E. Foreign-born African American Elderly in the NHIS*

Approximately 6% (151,266) of the African American respondents to the NHIS survey indicated that they were not born in the United States. The majority of foreign-born individuals, 85%, had lived in the U. S. 15 or more years. Four percent had lived in the U. S. between 10 and 14 years, 6% between 5 and 9 years and an additional 4% had lived in the U. S. between 1 and 4 years. Two percent did not indicate the number of years they had lived in the U. S.

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<sup>1</sup> Delaware, Maryland, District of Columbia, West Virginia, Kentucky, Tennessee, North Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas.

<sup>2</sup> Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania.

<sup>3</sup> Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska.

<sup>4</sup> Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii.





The majority (75%) of foreign-born African Americans in the NHIS survey lived in the northeast<sup>5</sup>. Less than one quarter (22%) lived in the south<sup>6</sup> and a very few, 2% respectively, lived in the midwest<sup>7</sup> and west<sup>8</sup>. Additionally, 79% indicated that they were Medicare beneficiaries.

African American immigrants primarily enter America from one of two regions, Africa or the Caribbean. The U. S. Bureau of the Census, March 1997 Current Population Survey classifies African immigrants in the following manner:

- Eastern Africa
  - Ethiopia
  - Kenya
  - Somalia
  - Tanzania
  - Uganda
  - Zambia
  - Zimbabwe
- Middle Africa
  - Angola
  - Cameroon
  - Zaire
- Northern Africa
  - Algeria
  - Egypt
  - Libya
  - Morocco
  - Sudan
  - Tunisia
  - North Africa, not elsewhere classified
- Southern Africa
  - South Africa
- Western Africa
  - Cape Verde
  - Ghana
  - Liberia
  - Nigeria
  - Senegal
  - Sierra Leone

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<sup>5</sup> Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania.

<sup>6</sup> Delaware, Maryland, District of Columbia, West Virginia, Kentucky, Tennessee, North Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas.

<sup>7</sup> Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska.

<sup>8</sup> Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii.



- Africa, not elsewhere classified

The U. S. Bureau of the Census, March 1997 Current Population Survey classifies Caribbean immigrants in the following manner:

- Antigua & Barbuda
- Aruba
- Bahamas
- Barbados
- Cuba
- Dominica
- Dominican Republic
- Grenada
- Haiti
- Jamaica
- Montserrat
- Netherlands Antilles
- St Kitts-Nevis
- St Lucia
- St Vincent and The Grenadines
- Trinidad & Tobago
- Other Caribbean

Although there are persons who have African ancestry who emigrate to the U. S. from countries other than those listed above, they are relatively small in number and very often are Hispanic, e.g., Panama. Research indicates that 40% of the Africans who come to the U. S. are white and 10% are Asian (American Demographics, 1994).

The U. S. Bureau of the Census, March 1997 Current Population Survey reports that there were approximately 21,000 Americans who were born in Africa who were Medicare beneficiaries in 1996. Health insurance status of citizens born in Africa is not reported by the country of their birth, however given the racial profile of African immigrants, noted above, some of these individuals must by definition be white or Asian.

The U. S. Bureau of the Census, March 1997 Current Population Survey also reports that there were 431,000 Americans who were born in the Caribbean who were Medicare beneficiaries in 1996. However, the majority of the individuals who come to the U.S. from the Caribbean were born in Cuba or the Dominican Republic and are Spanish speaking. Persons from these areas who have African ancestry are often considered to be Afro-Latino. Similarly, persons from other parts of the region are considered to be Afro-Caribbean.





### III. Qualitative Research—Literature Review

#### A. *Introduction*

The profile of the health characteristics of the African American elderly can be segmented into four distinct sections: health promoting behaviors; preventive health behaviors; health care seeking behaviors; and, level of health literacy. Health promotion behaviors are those that advance and/or maintain a person's health status, such as, exercise and eating right (Smith Ruiz, 1994). Preventive health behaviors are behaviors that screen for disease such as mammograms, and prostate cancer screening (Duelberg, 1992). Health care seeking behaviors are behaviors that characterize a person once he/she has been diagnosed with a condition (Anderson, et al., 1998). An example of a health care seeking behavior is the way a diabetic regulates his insulin. Finally, health literacy is the ability of a person to read and comprehend materials relating to his/her health as well as the person's ability to understand doctor's instructions and recommendations (National Work Group on Literacy and Health, 1999). All four of these components are integral to the health status of the African American elderly and impacts their quality of life.

#### B. *Health Promotion Behaviors*

Adherence to health promotion can have a substantially positive effect on individuals as well as entire communities, and may lead to a longer and improved quality of life. It can also reduce the costs of health care in communities. Health promotion behaviors are important to communities because, by encouraging people in the community to participate in health promotion the community insures a higher level of health among its residents, thereby lowering the costs of health care (Smith Fahie, 1998).

African American elderly generally report a higher incidence of many preventable diseases and have a lower life expectancy than whites. African American elderly also exhibit more health-related problems and a poorer health-functional status than whites (Kim, et al., 1998). The incidence of several diseases in African American communities is disproportionate to the population size. Thus, African Americans are at higher risk and more in need of health promoting behaviors (Brown, et al., 1998). Another study suggests that racial differences in health promoting behaviors are more prevalent in the 65-74 years age group than the 75+ years age group (Kim, et al., 1998). As the elderly reach age 75, the health promotion disparities among different groups subside.

Different theories have been postulated to explain the apparent lack of health promoting behaviors in African Americans. One author suggests that education is the key (Brown, et al., 1998). According to a survey of African American adults, more effective methods are needed for educating the population about health promotion. The people who are most at-risk for



developing diseases are not being reached by current methods of education (Brown, et al., 1998). Misunderstandings and miscommunications about health care and healthy lifestyles can lead to poor health promotion practices. Another researcher suggests that African Americans must become educated about the importance of being responsible for one's own health in order to alleviate disease and chronic illness (Smith Ruiz, 1994).

An additional theory explaining the lack of health promotion among African Americans is that the communities have a deep sense of distrust in the health care profession (Boothe, 1998). Historically, African Americans have been exploited as clinical subjects in medical trials. For example, African Americans were the subjects of the Tuskegee Syphilis Study as well as the U.S. Army's mustard gas tests during World War II (Boothe, 1998). As a result, distrust in the health care system has been passed down through the generations to the point where it has become a decision-making issue in many African American families (Boothe, 1998). The underlying fear of exploitation in some segments of African American communities prevents many from being more involved in their own health care and, in turn, leads to poor health promotion (Eleazer, et al., 1996). This theory is particularly applicable to the elderly because many elderly persons are old enough to have experienced the exploitation first or second-hand and are therefore more prone to its lingering effects (Eleazer, et al., 1996).

During segregation, many African American families resorted to the use of folk medicine and family remedies for illnesses because health care services were often not available to them. One study examined the use of folk medicine and family remedies in African American communities and found that 80% of the African American elders surveyed reported using folk medicine and family remedies routinely in their families (Smith Fahie, 1998). Reliance on folk medicine and family remedies could keep people from adopting more mainstream health practices and behaviors that promote healthy living. Again, this situation is one that is more common among African American elders because they are more likely to have lived during a period when folk medicine and family remedies were prominent (Smith Fahie, 1998).

Several studies that examined the lack of health promoting behaviors in African American communities made important recommendations for fostering better health care promotion. Efforts to educate and inform need to be designed so that they reach those people who are at high risk (Brown, et al., 1998). Research shows that the better educated a person is, the more enlightened he/she will be about taking responsibility for his/her health (Pettaway, et al., 1999). Through education and communication, it is possible to address issues of distrust in the medical profession and promote the positive aspects of clinical trials, cancer screening, and organ donor programs which could help ease common concerns about exploitation by the health care profession (Boothe, 1998). Nurse practitioners who are sensitive to the issues of distrust and fear of exploitation may also help to abate some of the apprehension felt by some elderly African Americans (Pettaway, et al., 1999).

One researcher supports the need for health care professionals to adopt an Africentric model of health care when treating African Americans (Boothe, 1998). This approach suggests that





education, prevention, and intervention in health care should be culturally relevant and specific to the targeted population. The proposed Africentric model integrates concepts such as harmony, interconnectedness, authenticity, history, culture, philosophy, spirituality, holism, and stylistic expressiveness into a framework for health care work in African American communities (Boothe, 1998).

Efforts to increase the health promoting behaviors of the African American elderly should be made through community based organizations already familiar to the community, such as churches or religious institutions (Robinson, 1994). Using existing organizations may help to minimize any feelings of distrust in the health care system. Health fairs may be a good method of increasing knowledge and health promoting behaviors (Brown, et al., 1998). Health fairs have been shown to be an effective means of communicating health information by enhancing participants' knowledge about their own health. In a survey of African American adults at a health fair, 95% said they would probably or definitely make some kind of healthy lifestyle change and 91% stated that the health fair made them aware of diseases that could affect their health (Brown, et al., 1998). Also, 79% of the participants reported that they would make positive dietary changes as a result of attending the health fair. Additional research on health fairs had similar results. In one study, 95% of the participants stated that they would improve at least one health promotion behavior (Clark, 1985). In another study on health fairs, 78% of respondents reported that they would make at least two healthy lifestyle changes (Bryan, et al., 1991). These studies support the notion that educating and reaching out to African American elderly about health promotion behaviors is best done within the community.

### *C. Preventive Health Behaviors*

Preventive health behaviors influence an individual's morbidity and mortality. Preventive health behaviors can be segmented into two categories: primary prevention and secondary prevention. Primary prevention is the same as health promotion and includes behaviors such as obtaining flu shots, maintaining a healthy body weight, not smoking, and exercising (Duelberg, 1992). Secondary prevention involves being tested and screened for disease when no symptoms are apparent (Duelberg, 1992). Examples of secondary preventive measures are physical breast exams, mammograms, prostate-specific antigen (PSA) testing, and Pap tests for cervical cancer. This section will focus on the secondary preventive health behaviors of African Americans.

An African American woman's life expectancy is five years less than that of a Caucasian woman and her mortality rates for cancer are higher than those of a Caucasian woman (Duelberg, 1992). The five-year survival rate for African American women with cancer is 57% and is 71% for Caucasian women (McDonald, et al., 1999). While Caucasian women experienced a decrease in the incidence of breast cancer from 1990-1995, the opposite was true for African American women (McDonald, et al., 1999). It is estimated that 1 out of every 11 African American women will develop breast cancer in her life (Ashing-Giwa, 1999). Research shows that African American women are less likely than Caucasian women to engage in preventive health measures such as mammograms and breast exams (Warnecke, 1981; McDonald, et al., 1999). Studies





have also shown that African American women are less likely to participate in screening for cervical cancer by having a Pap test (Duelberg, 1992; McDonald, et al., 1999). The apparent lack of participation in preventive health behaviors is related to the higher rates of cancer mortality in African American women.

The literature suggests that there are multiple barriers to increasing the levels of preventive health behaviors in African American women. Barriers to screening for cancer include: cost, lack of physician referrals, lack of adequate insurance, lack of knowledge of the importance of early detection, differing levels of knowledge and attitudes about cancer, poor access to medical care, lack of comprehensive medical treatment, lack of continuity of care, and lack of cultural competence of the health care provider (Duelberg, 1992; Ashing-Giwa, 1999; McDonald, et al., 1999). There are barriers that are specific to the elderly as well, such as, the fear of finding cancer, fear of the effects and the cost of treatment, and poor knowledge about cancer (McDonald, et al., 1999).

It has been suggested that a new framework should be designed to improve preventive health behaviors in the African American communities (Ashing-Giwa, 1999). The components for this new framework are similar to those of the Africentric model. According to the literature, the future framework should include facets of interconnectedness, health socialization, religiosity, and socio-ecological factors (Ashing-Giwa, 1999). Health care professionals and researchers need to develop a thorough understanding of the influence that culture has on health behaviors to adequately address the issue of preventive health behaviors among African Americans.

Although a good deal of research suggests that African American women do not participate in preventive health behaviors as often as Caucasian women, there are signs that this pattern may be changing. The National Health Interview Survey (NHIS) data shows that in 1987, 19% of African American women had mammograms and by 1990 the number had increased to 50% (McDonald, et al., 1999). The increase in some preventive behaviors in African American women may be due to new screening programs available in community health clinics and government subsidy on costs.

Cancer rates in African American men are similar to those of African American women in that they are higher than cancer rates for Caucasian men. African Americans are 30% more likely to die of cancer than Caucasians. The incidence of colorectal cancer in Caucasian men is on a decline but has not changed for African American men (American Cancer Society, 1998). African American men are also at a higher risk for developing advanced-stage prostate cancer than Caucasian men and African American men are almost twice as likely to have advanced-stage prostate cancer than Caucasian men (Bennett, et al., 1998). The five-year survival rate for African American men with prostate cancer is 75% and is 90% for Caucasian men (Myers, et al., 1999).



Research shows that African American men over the age of 65 have poor access to screening and early detection programs for prostate cancer (Bennett, et al., 1998). However, studies show that race may not be the most significant factor in explaining discrepancies in cancer rates between African Americans and Caucasians. For example, one study found that cancer rates are not affected significantly by race but by factors associated with African Americans (Myers, et al., 1999). Results from this study indicate that there are no relevant biological differences between African Americans and Caucasians that make African Americans more prone to prostate cancer. Instead, it is lack of early detection methods that makes African Americans more prone to prostate cancer (Myers, et al., 1999).

Other important factors may be low income and low education levels that are disproportionately associated with much of the African American communities. Cost is another factor that is a barrier to many preventive health behaviors. Researchers suggest that people with low incomes may not be able to afford to have a PSA test for prostate cancer and these tests are not covered by Medicare (Bennett, et al., 1998). Poorly educated men may not have knowledge of the importance of early detection and screening for cancer. Simply put, some men may not be aware of PSA tests, what they are for, and how to receive one (Bennett, et al., 1998).

Literacy levels have a significant effect on preventive health behaviors. In one study, researchers found that race was not statistically significant in prostate cancer rates when literacy was controlled for (Bennett, et al., 1998). If people cannot read health materials or cannot understand what they are reading, they are going to have limited knowledge of disease and therefore will exhibit low participation in health behaviors designed to prevent disease.

Health education materials need to be written for people with low-literacy skills and developed specifically for the target population. One study showed an increase in cancer screening behaviors among African American men who received print materials along with a follow-up phone call (Myers, et al., 1999). The print materials educated them about the importance of being screened for cancer and also informed them where to obtain these services in the community.

Barriers to colorectal screening are similar to those of prostate cancer. The cost of screenings and early detection methods coupled with poor access to health care keep many African American men from participating in the screening (Powe, et al., 1999). A lack of knowledge about colorectal cancer is also a barrier to screening. Another barrier that is more prevalent in African Americans is cancer fatalism (Powe, et al., 1999). Cancer fatalism is the assumption that a diagnosis of cancer means that death is inevitable, regardless of treatments available (Powe, et al., 1999). Research has shown that people who are fatalistic are less likely to participate in cancer screening because they do not believe that treatment can help (Powe, 1995).

Researchers investigating differences in health behaviors between rural and urban African Americans have found that urban African Americans have more positive health behaviors than





rural African Americans (Duelberg, 1992; Powe, et al., 1999). For example, Duelberg found that rural African American women are less likely than urban African American women to have a Pap test for cervical cancer and to have a breast exam or mammogram (Duelberg, 1992). In addition, the incidence of colorectal cancer is high among rural African American men. Rural African American elderly men are less likely than urban African American elderly men to be screened for colorectal cancer and have an early detection participation rate of less than 30% (Powe, et al., 1999). Living in a rural area has been found to be characterized by lower education, lower income, less access to medical care, less general knowledge about health care, and low awareness of the importance of health promotion and early detection (Duelberg, 1992; Powe, et al., 1999).

#### *D. Health Care Seeking Behaviors*

Research has shown that African American elderly under-utilize health care (Anderson, et al., 1989). One study sought to determine the factors that affect health care utilization patterns in African American elderly with hypertension and diabetes (Butler, et al., 1994). The sample of African American elderly (average age 67 years old) visited the doctor an average of 4-5 times a year. In addition, the study found a correlation between frequency of visits to the doctor or health clinic and difficulty with daily activities as well as a correlation between number of diseases present and number of visits to the doctor or clinic. An additional finding was that education level positively affects the number of visits to the doctor or health clinic (Butler, et al., 1994). An important conclusion of the study was that African American elderly who are able to maintain their independence generally utilize health care and other health resources more often and effectively than their counterparts who do not maintain their independence. In order to maintain a sense of independence, the elderly need to become active participants in their own health care. A program that promotes behavioral self-management, self-monitoring, and education could positively affect health care utilization patterns in African American elderly (Butler, et al., 1994).

African American elderly are more at risk than Caucasian elderly to develop and die from hypertension and diabetes. The high incidence of death and other complications from hypertension and diabetes is a result of poor preventive health behaviors and poor health maintenance (Butler, et al., 1994). African Americans are twice as likely as Caucasians to develop hypertension and African Americans over the age of 65 years have a higher incidence of hypertension than Caucasians over the age of 65 years (Butler, et al., 1994). The development of hypertension has been associated with social stress, decreased financial independence, progressive physical impairment, and social disorganization (Anderson, et al., 1989).

A disproportionate number of African Americans have diabetes. Diabetes is more likely to occur in an adult African American than an adult Caucasian (Chin, et al., 1998). In 1975, the rates of diabetes in Caucasians began to level off but continued to increase in African Americans. One out of every four African American women over the age of 55 has diabetes (Butler, et al., 1994) and 25% of African Americans between the ages of 65 and 74 have diabetes (American Diabetes



Association, 1999). African American diabetics have more complications such as, blindness, amputations, and end-stage renal disease. In addition, diabetes is often associated with hypertension, coronary heart disease, and gangrene. Diabetes has been linked to a decreased life expectancy and increased mortality (Witucki, et al., 1998). Diabetes also has an enormous cost associated with it. The annual economic cost of diabetes was estimated to be \$98 billion in 1997, which represents 5.8% of total person health care expenditures in the United States (American Diabetes Association, 1999).

One study of the high level of complications and increased morbidity associated with African American diabetics found that African American elderly diabetics have higher mortality and morbidity rates until they reach the age of 80, at which point they become “more hardy” than their Caucasian counterparts (Witucki, et al., 1998). Findings from this study show that African American diabetics used significantly fewer services than Caucasian diabetics. This under-utilization of services could help to explain the high rates of diabetic complications (Witucki, et al., 1998).

Another study of diabetics was designed to examine whether African American Medicare recipients receive adequate quality of care, utilize resources, and have an increased risk for morbidity. The findings from this study showed that the African American sample was less likely than the Caucasian sample to have a measurement of glycosylated hemoglobin, lipid testing, ophthalmological visits, and flu shots (Chin, et al., 1998). Researchers suggest that there are racial differences in the health care services offered by physicians (Adler, et al., 1993). Other barriers to improved care for African American elderly diabetics include issues of education, attitude, and economics (Anderson, et al., 1991). Overall, the study found that the African American sample had a lower health perception than the Caucasian sample and was less likely to receive many of the recommended services for diabetics. The researchers suggest that the lower rate of services may reflect reluctance on the part of some African Americans to accept certain forms of prevention methods. It has also been suggested that the differences in services results from discrimination and bias by physicians.

#### *E. Health Literacy*

Health literacy is the ability to read and comprehend information regarding one’s health, such as, prescription instructions, treatment options, appointment slips, and consent forms (American Medical Association, 1999). Limited health literacy can have a negative effect on a person's health (National Work Group on Literacy and Health, 1999). It also can preclude the elderly from making informed choices and decisions about Medicare+Choice benefits, rights, and protections. In addition, the patients who have the lowest levels of health literacy may also be those who have the greatest health care needs (American Medical Association, 1999).

Studies show that literacy is lower in people over the age of 65 and in minorities (HCFA, 1999b). The National Adult Literacy Survey (NALS) data shows that of those who are ranked in





the lowest literacy group, 66% are age 65 or older (Weiss, et al., 1994). In a study measuring the health literacy of low-income minority patients aged 60 years and older, researchers found that 81% had inadequate health literacy (Williams, et al., 1995). Of the patients studied, 42% were not able to understand directions for taking medication on an empty stomach and 26% could not understand the information found on an appointment slip. In another study researchers examined the reading levels of low-income elderly adults aged 60 to 94 and found that the mean reading level of this age group was that of a fifth-grader (Weiss, et al., 1995).

In one study, researchers found that 34% of the Medicare enrollees aged 65 and above had inadequate or marginal health literacy (Gazmararian, et al., 1999). This study also found that 52% of those enrollees with inadequate health literacy were African American and that African American men were significantly more likely than white men to have literacy levels lower than the sixth grade.

According to the Report of the National Work Group on Literacy and Health, over 14 studies conclude that patient education materials are written at the tenth grade level or higher (National Work Group on Literacy and Health, 1999). In addition, the report stated that informed consent papers for cancer trials and invasive procedures are usually written at the college or graduate school level. A major problem is that written health materials are often too difficult for patients to understand. Other studies have shown that information such as patient education brochures, discharge instructions, contraception instructions, and consent forms are all written at levels exceeding patients' reading (American Medical Association, 1999). There appears to be a wide gap between the levels at which many adults are reading and the level at which most medical information is written. This problem may compromise the health care of many adults.

Limited health literacy creates a barrier for those elderly patients who are trying to participate in their health care. Studies have shown that patients with low health literacy and chronic illness have less knowledge about their illness and its treatment plan (Gazmararian, et al., 1999). Often, patients with low health literacy do not fully comprehend diagnosis and treatment of an illness and therefore are less likely to understand and follow medical advice. Among the elderly, limited health literacy may inhibit patients from understanding health messages as well as their ability to take care of themselves (American Medical Association, 1999). The implications of low health literacy are clear. If patients do not understand their illnesses and the treatment plans, it is difficult for the patients to help themselves become healthy again. In addition to misinformation about existing illnesses and conditions, low health literacy can keep people from participating in preventive medicine such as screenings for various illnesses (Bennett, et al., 1998).

Low health literacy has also been shown to increase the risk of hospitalization of patients as well as increase patients' annual health care costs. In one study, researchers found that hospital utilization was higher among those patients with lower health literacy (Baker, et al., 1996b). The patients with the lowest health literacy had an average of over 2 more outpatient hospital visits per year than those patients with adequate health literacy. Those patients with low health literacy





were also 52% more likely to be hospitalized than those with adequate health literacy. Another study examined the relationship between health care costs and health literacy. In unpublished data, researchers showed that those patients with the lowest reading levels had an average annual health care cost of \$12,974. The average annual health care cost for the overall population of the study was \$2,969 (Stedman, et al., 1991).

Low health literacy is not only expensive for the patient but it is expensive for managed care (HCFA, 1999b). Working with a population with low health literacy can potentially raise the costs of managing a health plan and providing the care. Patients with low health literacy may not comply with enrollment procedures and may use the plan inappropriately. Patients may not know how to enroll or they may misuse the emergency room (as stated above) thus incurring unforeseen costs (HCFA, 1999b). These are just a few examples of how health literacy can also affect the costs for managed care.

Most health care professionals do not consider it, but it is likely that people with low health literacy will not tell their health care professional that they have trouble reading or understanding written materials nor will they ask for help (National Work Group on Literacy and Health, 1999). There is a certain amount of shame associated with having difficulty reading and understanding written material and therefore many patients opt to keep their literacy problems to themselves. Often, patients who have low health literacy lack the assertiveness and self-empowerment needed to be an active participant in one's own health care (Gazmararian, et al., 1999). Lacking the confidence to be assertive coupled with a limited understanding of written medical information can be contributing factors in poor health.

In their report on health literacy, the Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs of the American Medical Association (American Medical Association, 1999) outlined reasons why health literacy should become a policy issue in the United States. First, patients with low literacy cannot be empowered in a market-driven health care system. Second, patients who do not understand medical instructions will not receive good medical care. Third, health care professionals and hospitals are liable for adverse outcomes by patients who do not understand health information. Fourth, poor health literacy probably results in substantial health care costs for the U.S. Fifth, health literacy problems are more common in those populations that are more dependent on the public for their health care.

#### *F. Religion*

For ethnic minorities in the United States, one of the most significant support systems is religiosity or spirituality. African American culture has historically been developed around the church with people relying on the church for religion as well as social support and a sense of community (Stolley, et al., 1997). Elderly African Americans are especially religious and invested in attending church. Understanding the importance of religiosity to the African



American elderly can be significant in reaching and responding to the health communication needs and wants of African American elders.

In one study, it was found that almost 93% of African Americans partake in daily prayer (Chatters, et al., 1992). African Americans pray more than white Americans and older African Americans pray more than younger African Americans (Taylor, et al., 1991). The African American elderly are more likely to be members of a church congregation and attend regular church services than younger African Americans. In fact, it is estimated that over 75% of African American elderly are members of a church and 50% go to church at least once a week (Taylor, et al., 1991). Within the African American elderly population, more females are involved in religious activities than their male counterparts and among females, those who are married tend to be more involved in organized religion than those who are divorced or widowed (Chatters, et al., 1992). It is clear that religion is central to the African American elderly.

Not only do the African American elderly attend organized religious /faith events but it is also common for the elderly to participate in non-organizational religious activities. The most common practice of non-organizational religious activity is prayer, which is a large part of the lives of African American elderly. In addition, African American elderly are likely to watch religious broadcasts, listen to religious radio shows and read religious materials (Taylor, et al., 1991).

One of the aspects of religiosity that is studied often is the connection between religiosity and health. Churches offer support to members in many forms. In a study examining the different types of support that older adults obtain from church, researchers found that the most common type of support reported by churchgoers is that of socio-emotional support during a time of illness (Levin, et al., 1995). One of the specific ways the African American elderly uses religiosity to promote their health is through prayer. According to focus groups conducted by the AARP, prayer and turning to God are both important coping responses for African American elderly (AARP, 1993). It allows the elderly to relieve stress and find solace in times of need. In another study, researchers found that 51% of elderly African Americans surveyed employed religious methods of coping with negative life events (Rosen, 1982). In addition, more recent studies show that African American adult women consider prayer to be health-promoting behavior and that belief in a higher power provides a feeling that all things are possible (Pettaway, et al., 1999).

A contrasting role of religiosity in health care is the significance of "fatalistic" attitudes among the elderly. It is not uncommon for elderly to believe that their health is in the hands of fate and any kind of preventive medicine or treatment would be vain. Specifically, fatalism about cancer has been most commonly documented in African American elderly, particularly those residing in rural areas (Powe, et al., 1999). Studies show that people who are fatalistic are far less likely to actively engage in preventive measures, such as colorectal cancer screening (Powe, et al., 1995). By not participating in cancer screening, older people with fatalistic attitudes increase their risk of being diagnosed with late-stage cancer. One study demonstrated the importance of





incorporating spirituality and religion into an intervention designed to decrease colorectal cancer fatalism. The intervention promoted notions of spirituality such as hope, positive health beliefs and outcomes, and coping skills (Powe, et al, 1999). By appealing to the religiosity and spirituality of the elders in the study, the intervention was able to decrease cancer fatalism in a particular group of elderly (90% of whom were African American), thus substantiating the idea that health care needs to address religiosity.

Religious worship, observance, and beliefs may have an important effect on a person's perceptions, health seeking behaviors, and health status. Therefore, it is important for health care professionals and organizations to be aware of the significant role religion can play in the health of a population. Religion has consistently been an important part of the African American elderly communities and can be used as a method for intervention. One of the implications of the research in religiosity is that health promotion programs and interventions should include concepts that address religious belief (Pettaway, et al., 1999).

The chart on the following pages provides a summary of the qualitative research literature sources. For each source, it lists the title, author, demographics of the sample studied, and main findings.



## Qualitative Research: Literature Sources

Title	Source	Author	Demographics Of Sample	Year	Main Findings
Assessment of Health Needs of Low Income, Inner City, African American (A.A.) Elderly	Journal of Cultural Diversity	McMillian Preston	African American Elderly	1996	Minority elderly are mostly female, poor, have low educational attainment, and live alone. Health service needs are medical, dental, vision, nutrition, nursing, health education, hearing, and socialization.
Religion/Spirituality and Health Among Elderly A.A. and Hispanics	Journal of Psychosocial Nursing	Stolley Koenig	Literature Review	1997	75% of elderly AA are church members and 50% go once a week. The link between AA and religion is consistent through life, health care professionals must be aware of the link.
Communicating with Patients Who Have Limited Literacy Skills	Journal of Family Practice	National Work Group on Literacy and Health	Literature Review	1998	Half of US has limited reading skills, makes it difficult to communicate with patients, low-literacy materials should be at 5 <sup>th</sup> grade level, research is needed to test efficacy of materials.
Health Literacy Report of the Council on Scientific Affairs	JAMA	Ad Hoc Committee on Health Literacy	Literature Review	1999	Poor literacy results in poor health status and less understanding about conditions and treatment, may increase risk of hospitalization, awareness of literacy in health should increase.
Health Literacy Among Medicare Enrollees in a Managed Care Organization	JAMA	Gazamararian Baker Williams Parker et al.	New Medicare enrollees 65+ 12% African American 57% female	1999	Elderly enrollees may not have literacy skills to function well, may impair understanding of health messages and limit ability to care for medical problems.
Congruence Between Education and Reading levels of Older Persons	Psychiatric Services	Baker Johnson Velli Wiley	83% A.A. 77% female 50+ years old	1996	Older people may not be able to comprehend written instructions for medicine and diets, materials should be written below an 8 <sup>th</sup> grade level.
Literacy Skills and Communication Methods of Low-Income Older Persons	Patient Education Counseling	Weiss Reed Kligman	Age 60-94	1995	Mean reading skills were at grade 5, health info should be disseminated through literacy-appropriate methods, 97% reported T.V. as main source of information.



Title	Source	Author	Demographics Of Sample	Year	Main Findings
The Relationship of Patient Reading Ability to Self-Reported Health and Use of Health Services	American Journal of Public Health	Baker, Parker, Williams, Clark, Nurss	Patients in urban hospitals	1997	Patients with low health literacy are more likely to report their health as poor and more likely to report a hospitalization within the year.
Inadequate Functional Health Literacy Among Patients at Two Public Hospitals	JAMA	Williams, Parker, Baker, Parikh, Pitkin, Coates, Nurss	Patients in urban hospitals, mostly minorities	1995	41% couldn't comprehend directions for taking medicine, 26% couldn't understand appointment schedules, 59% couldn't understand a consent form, and 81% of those over age of 60 had inadequate health literacy.
Knowledge of Diet and Blood Pressure Among A.A.s: Use of Focus Groups for Questionnaire Development	Ethnicity and Disease	Carter-Edwards, Bynoe, Svetkey	A.A. adults, Mean age = 48, FOCUS GROUPS	1998	Most participants knew what hypertension was and its risk factors and outcomes and foods that are associated with it, some had misconceptions about hypertension, results of focus groups helped formulate a questionnaire (Knowledge of Diet and Blood Pressure).
Utilization of Folk/Family Remedies by Community Residing A.A. Elders	Journal of Cultural Diversity	Smith, Fahie	200 A.A. age 65+	1998	80% reported using f/f remedies routinely, 90% of elders who reported better self-rated health used f/f remedies.
A Survey of A.A. at a Community Health Fair	Journal of Health Care for the Poor and Underserved	Brown, Kahn	A.A. adults, mean age = 41	1998	All said they would probably attend again next year, first time attendees and women were most likely to make lifestyle changes from attending
African American Attitudes Toward Participation in Health Care	ABNF Journal	Boothe	Lit Review	1998	The Afri-centric model may be an effective tool for changing attitudes towards participating in healthcare.
Health Promoting Behaviors of Urban African American Female Heads of Households	ABNF Journal	Pettaway	73% A.A. women, mean age = 35 yrs	1999	Being head of household: has no sig. on health promoting behaviors, religiosity and education; is positively assoc. with health promotion. Smoking and ethnicity are negatively correlated.
Racial Differences in Health Status and Health Behaviors of Older Adults	Nursing Research	Kim, Bramlett, Wright, Poon	Adults over age of 60, 27% A.A	1998	A.A. had sig. lower mental health and self-perceived health than whites but there is no difference when controlling for education and income





Title	Source	Author	Demographics Of Sample	Year	Main Findings
Health Promoting Behaviors of African American Women	Nursing Research	Ahijevych, Bernhard	A.A. women age 18-69, mean = 36	1994	A.A. women scores for health promotion ranked 2 <sup>nd</sup> lowest, were lowest on self-actualization, exercise, nutrition and 2 <sup>nd</sup> lowest on interpersonal support.
Relationship Between Ethnicity and Advance Directives in a Frail Older Population	Journal of American Geriatrics Society	Eleazer, Hornung, Egbert, Eng, Hedgepeth, McCann, Strothers, et al	Adults Mean age = 79, 30% A.A.	1996	Blacks are sig. more likely to select aggressive interventions and less likely to select written instruments for expressing healthcare wishes.
Cultural Inroads for Health Service to the A.A. Elderly	Journal of Cultural Diversity	Robinson	Literature Review	1994	Efforts to assist A.A. elderly may be most successful when linked with naturally occurring organizations within the community.
Health Promotion and Disease Prevention Among African American Elderly	Journal of National Medical Association	Smith Ruiz	Letter to the Editor	1994	A.A. are slower to accept changes in health and social issues, recommend culturally specific health education, programs to change unhealthy lifestyles, educate Blacks about risk factors of chronic disease, create programs that address specific needs of African Americans.
Relation Between Literacy, Race, and Stage of Presentation Among Low-Income Patients with Prostate Cancer	Journal of Clinical Oncology	Bennett Ferreira Davis Kaplan Weinberger Kuzel, et al.	Low-income men Age 65 + 50% A.A.	1998	A.A. men were 49% more likely to present with prostate cancer and were sig. more likely to have literacy levels below 6 <sup>th</sup> grade, race is not a significant predictor of prostate cancer once literacy, age, and city are controlled for.
Preventive Health Behavior Among Black and White Women in Urban and Rural Areas	Social Science Medicine	Duelberg	Females Mean age = 45 16% A.A.	1992	A.A. women are less likely to engage in primary preventive health measures but more likely to engage in secondary preventive behaviors.
An Intervention to Decrease Cancer Fatalism Among Rural Elders	Oncology Nursing Forum	Powe Weinrich	90% A.A. Mean age = 75	1999	People who watched the intervention video had greater decrease in cancer fatalism and increased knowledge in colorectal cancer.



Title	Source	Author	Demographics Of Sample	Year	Main Findings
Health Behavior Change Models and Their Socio-Cultural Relevance for Breast Cancer Screening in A.A. Women	Women and Health	Ashing-Giwa	Literature Review	1999	Health behavior models are not designed for A.A. women, should include interconnectedness, health socialization, ecological factors, and health care system factors into A.A. interventions, healthcare systems pose barriers to A.A. women.
Perceptions and Knowledge of Breast Cancer Among A.A. Women Residing in Public Housing	Ethnicity and Disease	McDonald Thorne Pearson Adams-Campbell	A.A. Women Mean age = 52 yrs	1999	Knowledge of breast cancer was poor, did not perceive themselves as at risk nor did they perceive breast cancer as fatal, 92% had a breast exam, 80% had a mammogram.
Adherence by African American Men to Prostate Cancer Education and Early Detection	Cancer	Myers Chodak Wolf Burgh McGrooy, et al.	A.A. men Age 40-70 71% were 50+	1999	Adherence to prostate cancer detection was sig. higher in enhanced intervention group than in minimal intervention group, enhanced intervention included a mailed letter about upcoming screening and given print material and telephone contacts.
Knowledge and Care of Chronic Illness in Three Ethnic Minority Groups	Family Medicine	Becker Beyene Newsom Rodgers	Adults age 50+ 23% A.A.	1998	A.A. reported greatest # of chronic illnesses and secondary effects of diseases, were knowledgeable about illness, followed medical directions, closely reflect US values of autonomy and responsibility.
Health Care Utilization Patterns of Hypertensive and Diabetic African American Elderly	Journal of Cultural Diversity	Butler Secundy Romberg	A.A. aged 60+ Had diabetes or hypertension	1994	Elderly who maintain independence/autonomy are expected to make better use of healthcare resources, experience less depression and higher self-esteem.
Diabetes in the A.A. Medicare Population	Diabetes Care	Chin Zhang Merrell	Diabetics age 65+ 14% A.A.	1998	A.A. had worse health perception, lower quality of care, more likely to use the ER and went to the doctor less than whites.





Title	Source	Author	Demographics Of Sample	Year	Main Findings
Diff. in Functional Status, Health Status, and Community Based Service Use Between Black and White Diabetic Elders	Journal of Cultural Diversity	Witucki Wallace	51% A.A. Age 65+	1998	No sig. differences in health status or activities of daily living (walking, bathing, eating), community based service use was sig. lower among A.A. than whites, whites had more difficulty with instrumental activities of daily living (food prep, housecleaning).
Unemployment, Depression, and health: A look at the A.A. Community	Journal of Epidemiological Community Health	Rodriguez Allen Frongillo Chandra	Adults age 17-65 17% A.A.	1999	Employment was related to depression for whites but not for A.A., income was not sig. related to depression, wealth was predictor of depression for whites but not A.A., positive personal relationships were positively related to better health status.
Mental Health Issues for Minority Seniors	AARP	AARP	A.A. adults 65+  FOCUS GROUPS	1993	For A.A., happiness = family, friends, positive attitudes, empowerment, good health. Sadness= family problems, violence, poor health. Coping strategies= staying active, sharing problems, God, prayer, church. Mental health problems= difficulties interacting, violence, unpredictable behavior. Attitudes towards mental health = stigma.



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## V. Appendix

Independent Variable	B	S.E.	df	Exp(B)
AGE GROUP			2 <sup>A</sup>	
AGE:65-74			1	.8718
AGE1:75-84	-.1372	.2652	1	1.4423
AGE1:>=85	.3662	.3765	1	
MARITAL STATUS***			3 <sup>A</sup>	
MARRIED			1	.0186
SINGLE	-3.9823	.5940	1	.0108
DIV/SEPARATED	-4.5312	.5398	1	.0104
WIDOWED	-4.5686	.5138	1	
METROPOLITAN STATISTICAL AREA**			2 <sup>A</sup>	
NON MSA,RURAL			1	.5154
MSA,CENTRAL CITY	-.6628	.3202	1	.9535
MSA,NOT CENTRAL CITY	-.0476	.3790	1	
POVERTY LEVEL*			1 <sup>A</sup>	
AT OR ABOVE			1	2.1036
POVERTY LEVEL			1	
BELOW POVERTY LEVEL	.7436	.2599	1	
GEOGRAPHIC REGION			3 <sup>A</sup>	
SOUTH			1	1.0620
NORTHEAST	.0601	.2997	1	2.2358
MIDWEST	.8046	.3371	1	.8319
WEST	-.1841	.4947	1	
GENDER/SEX			1 <sup>A</sup>	
MALE			1	1.5562
FEMALE	.4422	.2715	1	
HEALTH STATUS**			3 <sup>A</sup>	
EXCELLENT/VERY GOOD			1	5.2731
POOR	1.6626	.3866	1	2.0889
FAIR	.7366	.2975	1	2.4151
GOOD	.8817	.2836	1	
EDUCATION LEVEL			3 <sup>A</sup>	
< 12 YRS			1	1.1804
12 YRS	.1658	.2699	1	.5230
13-15 YRS	-.6482	.4685	1	.7207
16 YRS OR MORE	-.3275	.4082	1	
Constant	.9492	.2814		

<sup>A</sup> Reference group

\*Significant at .05

\*\*Significant at .01

\*\*\*Significant at .001



## Technical Note

The Helix Group, Inc. would have preferred to have graphically presented its findings from the National Health Interview Survey (NHIS) using ArcView, a computer mapping system noted for presenting geographic information (GIS). This was not possible. Although there are substantial geographical differences in the demographics of the African Americans Medicare beneficiaries surveyed, the structure of NHIS permits geographical cross tabulations of responses only at either a regional level (Northeast, South, Midwest, and West) or at a metropolitan statistical area level (Central City, Non-Central City, and Rural). Whereas, information at this level is useful, it does not diagram very well in computer mapping programs. Fortunately, the Medicare Current Beneficiary Survey permits cross tabulations by state, county, etc. Therefore, The Helix Group, Inc. will include such maps in the Draft Targeted Demographic Report.







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